"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROV, V.A., inzh.

Use of dual networks for calculating short-circuit to ground currents. Elektrichestvo no.5:12-15 My '65. (MIRA 18:6)

1. Proyektnaya kontora Moskovskogo rayonnogo upravleniya energeticheskogo khozyaystva Gosudarstvennogo proizvodstvennogo komiteta po energetike i elektrifikatsii SSSR.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

VZOROV, B.A., kand.tekhn.nauk; BUDYKO, Yu.I., kand.tekhn.nauk; KOGANER, V.E.; MAL'TSEV, A.V.; ZAYCHENKO, S.N.; SATAROV, V.A.; ABOLTIN, E.V.

Brief news. Avt.prom. 31 no.10:40-48 O '65. (MIRA 18:10)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATARIN, V.I.

For a higher development of production. TSement 29 no.6:1- N-D. '63
(MIRA 17:3)

1. Gosudarstvennyy institut po proyektirovaniyu tsementnykh zavodov v yuzhnykh rayonakh SSSR.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

Satarov, V. I.

V. Elastic scattering of neutrons by neutrons at an energy of 300 m.e.v. V. P. Dzhelepov, B. M. Golovin, and V. I. Satarov. *Atomic Energy Research Estab. Lib. Trans.* 349, 4 pp. (1955)(in English). *Doklady Akad. S.S.S.R.* 99, 943–6(1954).—A detn. was made of the difference in the scattering of heavy and ordinary water for 380-m.e.v. neutrons by using a fission chamber with annular electrodes covered with Bi as a neutron detector. Both the total cross section and differential cross section are similar to those found for (p, p) scattering and the data can be interpreted in terms of the charge independence of nuclear forces.
H. H. Hyman

(2)

Inst. Nuclear Problems, A.S. USSR.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

USSR/Nuclear Physics - Cross sections FD-2974

Card 1/1 Pub. 146 - 15/28

Author : Dzhelepov, V. P.; Satarov, V. I.; Golovin, B. M.

Title : Letter to the editor. Full cross section of certain elements for neutrons with energy 590 Mev

Periodical : Zhur. eksp. i teor. fiz., 29, September 1955, 369-371

Abstract : The synchrocyclotron of the Institute of Nuclear Problems, Academy of Sciences USSR, was used to carry out experiments on the determination of full cross sections of interaction with protons, deuterons, and more complex nuclei of neutrons having a mean effective energy of 590 Mev; the neutrons were obtained as a result of "overcharge" [perezaryadka] on beryllium by protons accelerated to an energy of 680 Mev, and the method of emission [vybyvaniye] of neutrons from a beam was employed for measuring the indicated cross sections. The author describes the general scheme involving concrete shield, collimator, Be target, telescope, Bi chamber, telescope detector, filter, scatterer, and proton (680 Mev) source. He gives indicated values for H, D, D-H, Be, C, O, Al, Cu, Sn, W, Pb, U. He remarks that the observed increase in the full cross sections of light-weight nuclei with increase in neutron energy from 400 to 590 Mev is successfully explained by the increase in the cross sections of elementary nucleon-nucleon interactions in the indicated range. Nine ref.

Institution : Institute of Nuclear Problems, Academy of Sciences USSR

Submitted : May 30, 1955

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATARUV V. V.

1539

ENERGY DEPENDENCY OF TOTAL NUCLEAR CROSS SECTIONS IN THE NEUTRON ENERGY RANGE FROM 380 TO 630 MEV. V. P. Dzhelepov, V. I. Satarov, and B. M. Golovin. (Inst. of Nuclear Problems.) Doklady Akad. Nauk S.S.S.R. 104, 717-20(1955) Oct. 11. (In Russian)

62

The total cross sections of neutron interaction with various nuclei in the energy range from 380 to 630 Mev are given. With the change of the energies from 380 to 630 Mev the cross sections of light nuclei (Be, C, O, Al) increase from 15 to 20%, while the cross section of heavy element nuclei (PbU) remain relatively unchanged. The scheme of the experiment and tabulations are presented. (R.V.J.)

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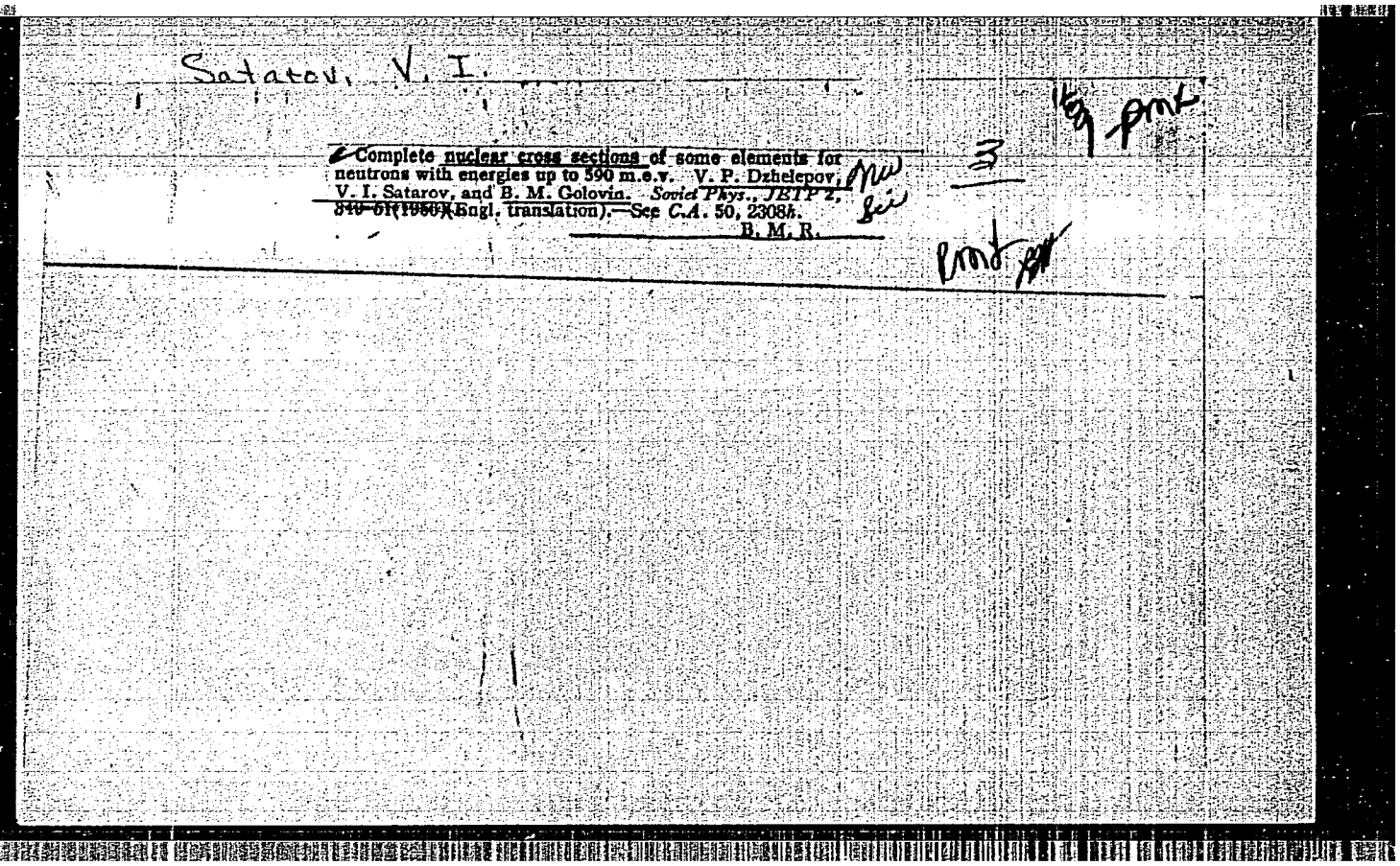

Satarov, V. I.

Complete nuclear cross sections of some elements for neutrons with energies up to 390 m.e.v. V. P. Dzhelepov, V. I. Satarov, and B. M. Golovin. *Soviet Phys.—JETP* 2, 340–61(1956)(Engl. translation). See *C.A.* 50, 2308*h*.

B. M. R.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SAFAROV, V. F.

Y6934
EXPERIMENTAL INVESTIGATION OF NEUTRON-NUCLEON AND NEUTRON-DEUTERON INTERACTION IN THE ENERGY REGION 380-590 MEV. V. P. Dzhelepov, Yu. M. Kazarinov, B. M. Golovin, V. B. Flyagin, and V. I. Satarov (Institute of Nuclear Problems of the Academy of Sciences of the U.S.S.R., Moscow). Nuovo cimento (10) 3, Suppl. No. 1, 61-79(1956). (In English)

Data on the nuclear interaction of particles in antisymmetric states were obtained from experimental scattering data of identical nucleons. Elastic scattering data of (n,p) and (n,d) reactions were investigated. (F.S.)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

21(10)

AUTHORS: Golovin, B. M., Dzhelepov, V. P., Nadezhdin, V. S., Sataroy, V. I.

SOV/56-36-2-13/63

TITLE: On the Possible Sets of Experiments for the Simultaneous Analysis of Data Concerning Nucleon-Nucleon Scattering and Polarization in p-n Collisions at Energies of 635 Mev (O vozmozhnykh naborakh opytov dlya sovmestnogo analiza dannykh po nuklon-nuklonnomu rasseyaniyu i polyarizatsiya v p-n-soudareniyakh pri energii 635 MeV)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 2, pp 433-443 (USSR)

ABSTRACT: The results obtained by all investigations of nucleon-nucleon scattering can be written down in form of various combinations of the 5 complex coefficients of the scattering amplitude. For the purpose of determining these 5 coefficients it is generally necessary to carry out 9 independent experiments. In dependence on various parameters (as e.g. nucleon energy) this number may increase or decrease. These conditions are discussed in the introduction. The suggestion is made as far as possible to reduce the number of experiments required to reconstruct the scattering amplitude by means of an analysis of the data

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

concerning n-p (p-n) and p-p scattering carried out simultaneously. Existing possibilities are discussed in detail, and practical suggestions are given in 2 appendices to this paper. Also the possibility of using data obtained from p-d scattering is investigated. Furthermore, the results obtained by experimental investigations are described; by means of a device described schematically by figure 1 the polarization in p-n collisions was investigated. The research scientists worked with a polarized proton beam of the synchrocyclotron of the OIYaI (United Institute for Nuclear Research), which had an energy of (635±15)Mev. At the target the beam had an intensity of $4 \cdot 10^5 \text{ sec}^{-1}$ and a degree of polarization of (58±3)%. The targets consisted of thin-walled plexiglass containers filled with heavy or ordinary water. The n-p scattering for $45^\circ \leq \vartheta \leq 145.7^\circ$ was investigated by recording the protons and neutrons by means of two telescopes connected in coincidence; for proton recording a telescope consisting of three counters with photomultiplier FEU-33 and plastic oscillators, and for recording neutrons a high-efficiency multiple-layer counter

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with liquid-scintillator was used (Ref 6). The results obtained by investigating the angular dependence of polarization in p-n scattering are shown by a table and by figure 2. The table contains the measured $(\epsilon + \Delta\epsilon)$- and $(P + \Delta P)$-values in % for 9 ϑ-values (in the center of mass system). The energy- and angular dependence of polarization for states (of the n-p system) with different isotopic spin is investigated, and these functions are found to depend also on the isotopic spin (T=0, T=1). $(PQ)_{T=1}$ increases with increasing energy, but $(PQ)_{T=0}$ decreases considerably (Figs 3 and 4). In appendix I systems of equations are given for certain forms of scattering amplitudes A_{pp} and A_{np}, with the aid of which suggestions are made in appendix II for experimental sets. The (explicit) equations concern the following basic experiments: 1) Elastic cross section. 2) Polarization in angular scattering. 3) Normal component of polarization relation. 4) Triple scattering in parallel planes (scattered particle). 5) Triple scattering in parallel planes (recoil particle). Polarization correlation in the case of scattering in two planes which are vertical to each

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

On the Possible Sets of Experiments for the Simultaneous Analysis of Data Concerning Nucleon-Nucleon Scattering and Polarization in p-n Collisions at Energies of 635 Mev

SOV/56-36-2-13/63

other. 7) Rotation of the polarization vector (scattered particle). 8) Rotation of the polarization vector (recoil particle). 9) The influence exercised by the longitudinal component of incident beam of polarization upon transversal scattering (scattered particle). 10) The same for the recoil particle. In appendix XII several experimental sets are suggested and the formulae for analysis are given.
The authors in conclusion thank L. I. Lapidus, R. M. Ryndin, and Ya. A. Smorodinskiy for discussions. There are 4 figures, 1 table, and 20 references, 10 of which are Soviet.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (United Institute for Nuclear Research)

SUBMITTED: September 3, 1958

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APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

GOLOVIN, B.M.; ZUL'KARNEYEV, R.Ya.; NIKANOROV, V.I.; SATAROV, V.I.

[Spin-orbital states of particles in elastic nucleon-deuteron scattering] Spinovye sostoianiia chastits pri uprugom nuklon-deitronnom rasseianii. Dubna, Ob"edinennyi in-t iadernykh issledovanii, 1961. 15 p. (MIRA 15:2)
(Nuclear spin) (Scattering (Physics))

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

GOLOVIN, B.M.; ZUL'KARNEYEV, R.Ya.; NIKANOROV, V.I.; SATAROV, V.I.; SARANTSEVA, V.R., tekhn. red.

[On the reduction of NN-scattering amplitudes in T=0 states] O vosstanovlenii amplitudy NN -rasseianiia v sostoianiiakh T=0. Dubna, Ob"edinenyi in-t iadernykh issledovanii, 1962. 8 p. (MIRA 15:12)

(Nucleons--Scattering)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

ACCESSION NR: AP4025925 S/0056/64/046/003/0920/0925

AUTHORS: Kazarinov, Yu. M.; Kiselev, V. S.; Satarov, V. I.

TITLE: Energy dependence of phase shifts in the scattering of nucleons by nucleons in the energy range 23-126 MeV

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 46, no. 3, 1964, 920-925

TOPIC TAGS: nucleon nucleon scattering, phase shift analysis, phase shift energy dependence, pp scattering, np scattering, unique solution

ABSTRACT: The phase shift analysis was carried out in an energy region where the experimental data are patently insufficient for a unique solution. The phase shift analysis program was analogous to that used earlier (Yu. M. Kazarinov and I. N. Silin, ZhETF, v. 43, 692 and 1385, 1962). The normal program of the phase shift analysis

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ACCESSION NR: AP4025925

with a search of solutions starting with random initial values was made at 52 and 126 MeV. The energy dependence of the most likely among the obtained seven phase shifts is traced at 23.1 and 66 MeV by refining interpolated values of the phase shifts with the aid of the existing experimental data. The resultant energy dependence is in satisfactory agreement with earlier results obtained by the authors and by others. "The authors are grateful to I. N. Silin and L. I. Lapidus for numerous discussions, to A. Carroll for communicating the data on np-scattering at 126 MeV and for useful remarks, and to B. Rose for reporting J. K. Perring's results of a pp-scattering phase shift analysis. Orig. art. has: 1 figure and 4 tables.

ASSOCIATION: Ob"yedinenny*y institut yaderny*kh issledovaniy
(Joint Institute of Nuclear Research)

SUBMITTED: 01Aug63 DATE ACQ: 16Apr64 ENCL: 01

SUB CODE: PH NO REF SOV: 005 OTHER: 020

Card 2/2

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L 45655-65 EWT(m)/T/EWA(m)-2
ACCESSION NR: AP5009830 UR/0367/65/001/002/0271/0273

AUTHOR: Kazarinov, Yu. M.; Satarov, V. I.; Simonov, Yu. N.

TITLE: Total cross section for the interaction of 630-MeV neutrons with protons and carbon nuclei

SOURCE: Yadernaya fizika, v. 1, no. 2, 1965, 271-273

TOPIC TAGS: neutron proton interaction, neutron carbon interaction, nucleon nucleon interaction, interaction cross section, elastic scattering, scattering cross section

ABSTRACT: Total cross sections for the interaction of neutrons of mean effective energy 630 MeV with protons and carbon nuclei have been measured by the neutron transmission method. The purpose of the measurement was to gain data on the total nucleon-nucleon cross section, which cannot be measured directly, and to obtain information useful in the phase-shift analysis of elastic nucleon-nucleon scat

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ACCESSION NR: AP5009830

obtained for the total cross section of the np and nC reactions are (35.2 ± 0.9) x x 10^{-27} and (324.0 ± 1.5) x 10^{-27} cm^2, respectively. It is deduced from these values that the imaginary part of the forward elastic NN scattering amplitude is equal to (- 7 ± 0.02) x 10^{-13} cm. Orig. art. has: 1 figure and 1 formula.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: 28Sep64 ENCL: 00 SUB CODE: NP

NR REF SOV: 004 OTHER: 000

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROV, V.N., inzh.

Ventilation of development workings after blasting operations.
Nauch. soob. VostNII no.1:9-13 '61. (MIRA 18:5)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROV, V.N., inzh.

Corrections to the estimate for ventilation in preliminary work after blasting. Shakht.stroi. 5 no.4:21-23 Ap '61. (MIRA 14:5)

1. Vostochnyy nauchno-issledovatel'skiy institut po bezopasnosti rabot v gornoy promyshlennosti
(Mine ventilation)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROV, V.N., inzh.

Review of the chapter "Ventilation of blind workings in cases of periodical gas and dust release" of the "Gornoe Delo" encyclopedia, volume 6. Ugol' 36 no.7:62-63 Jl '61. (MIRA 15:2)
(Mine ventilation)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

MYASNIKOV, Anatoliy Afanas'yevich. Prinimali uchastiye: DUDIN, I.V., inzh.; SATAROV, V.N., inzh.; SURKOV, A.L., inzh.; CHERNYAK, O.I., inzh.; AYRUNI, A.T., otv. red.; SMIRENSKIY, M.M., red.izd-va; OVSEYENKO, V.G., tekhn. red.

[Ventilation of mine workings with various coal mining systems] Provetrivanie gornykh vyrabotok pri razlichnykh sistemakh razrabotki ugol'nykh plastov. Moskva, Gosgortekhizdat, 1962. 219 p. (MIRA 15:9)

(Mine ventilation)
(Coal mines and mining)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROV, V.N.

Determination of the expected methane liberation from walls of blind workings in various methods of development mining. Nauch. soob. VostNII no.3:39-47 '63. (MIRA 17:5)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROV, V.S., inzh.

Determination of stress during the break of an overhead power transmission line wire. Elek. sta. 35 no. 4:67-70 Ap '64. (MIRA 17:7)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROV, V.N.

Calculation of mine air conduits with local ventilation fans operating in an injection mode. Vop.bezop.v ugol'.shakh. 4:35-41 '64. (MIRA 18:1)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

YEKISENINA, N.I.; MYGKOVA, L.P.; GINDINA, N.I.; SATAROVA, A.G.; TSERENNADMID, Ch.; SVETOVIDOVA, V.M.; POLYANICHKO, M.F.; TANKOV, P.I. (Sochi); BELOSLYUD, Ye.G.; SVERSHKOV, A.N.

Brief news. Sov. med. 28 no.5:151-153 My '65. (MIRA 18:5)

1. Klinika lechebnogo pitaniya Instituta pitaniya AMN SSSR, Moskva (for Yekisenina, Myagkova, Gindina). 2. Kafedra infektsionnykh bolezney 1-go Leningradskogo meditsinskogo instituta imeni akademika Pavlova (for Satarova). 3. Kafedra laboratornoy klinicheskoy diagnostiki TSentral'nogo instituta usovershenstvovaniya vrachey i I klinicheskaya bol'nitsa, Ulan-Bator (for TSerennadmid). 4. Saratovskiy nauchno-issledovatel'skiy institut travmatologii i ortopedii (for Svetovidova). 5. Khirurgicheskoye otdeleniye mediko-sanitarnoy chasti zavoda "Krasnyy Oktyabr'", Volgograd (for Beloslyud). 7. Iz Ukrainskogo nauchno-issledovatel'skogo instituta kommunal'noy gigiyeny (for Sverchkov).

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

LIPATOV, Nikolay Nikitovich, kand. tekhn. nauk, dots.; KUZNETSOV, V.I., inzh., retsenzent; IVANOVA, N.M., red.; SATAROVA, A.M., tekhn. red.

[Manual on laboratory and practical work in a course of studies on the equipment of enterprises of the dairy industry]Rukovodstvo k laboratornym i prakticheskim zaniatiiam po kursu oborudovaniia predpriiatii molochnoi promyshlennosti. Moskva, Pishchepromizdat, 1962. 224 p. (MIRA 15:11)
(Dairy industry--Equipment and supplies)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SOV/20-123-5-26/50

5(3)

AUTHORS: Shabarova, Z. A., Satarova, L. G., Prokof'yev, M. A.

TITLE: The Synthesis of P-Amino Acid Derivatives of Adenylic Acid (Sintez P-aminokislotnykh proizvodnykh adenilovoy kisloty)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 5, pp 864-867 (USSR)

ABSTRACT: The chemistry of the amino acid derivatives of nucleic acid and of the nucleotides is still in the pioneering stage, although these compounds play an important part in several biochemical processes. Compounds in which the amino acids are linked with mononucleotides by way of the phosphoric acid residue apparently play a role of particular importance. The present paper deals with the synthesis and the study of the properties of these compounds. The authors have produced 2 types of amino acid derivatives of adenosine-5'-phosphate: (I) compounds with a phosphoamine linkage between the nucleotide and the amino acid. They had hitherto not been described (Ref 1). Their synthesis was obtained by the action of amino acid ester on 2': 3'-isopropylidene-adenosine-5'-benzylphosphite (III) (Ref 2) in the presence of CCl_4 (Refs 3,4). The constants and the yields of the esters of the N-adenyl-amino acids produced are presented in table 1. The method of synthesis suggested by the authors is simple and guarantees sufficiently high yields. It must

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be regarded as preparative and can apparently be extended to the other nucleotides. Finally, it was proved that the P-N linkage in substances of the type (I) is readily hydrolized by acids, but is hydrolized with difficulty by alkalis. Thus the structure (shown in the scheme) was confirmed. The synthesized substances of the type (II) do not contain any phosphoamine linkage (see scheme). Of late, the methods of synthesis of mixed anhydrides of adenylic acid and of the amino acids have been studied intensively (Refs 5-8). The authors have succeeded in obtaining the mixed anhydrides of adenylic acid with kbz-leucine (kbz-leytsin) and kbz-glycine from 2' ; 3'-isopropylidene-adenosine-5'-benzylphosphite according to the scheme given. As the authors were interested in the reactivity of the substance (II) with the amino acid under formation of peptides, they did not isolate (II); on the contrary, they proceeded to introduce it into the reaction with the amino acid ester. In this way, anhydrides of 2' ; 3'-isopropylidene-adenosine-5'-benzyl-phosphoric acid with kbz-glycine (IIa) and with kbz-leucine (IIb) were produced. The substances IIa and IIb react with glycine or phenyl alanine methyl esters and form esters of kbz-glycyl-phenyl alanine and of kbz-leucyl-glycine. The formation of dipeptides

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The Synthesis of P-Amino Acid Derivatives of Adenylic Acid SOV/20-123-5-26/50

was demonstrated chromatographically.- There are 1 table and 10 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow State University imeni M. V. Lononosov)

PRESENTED: July 16, 1958, by A.N. Nesmeyanov, Academician

SUBMITTED: July 10, 1958

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

LAVRUKHINA, A.K.; MOSKALEVA, L.P.; MALYSHEV, V.A.; SATAROVA, L.M.; SU KHUN-GUY [Su Hung-Kusi]

Angular distribution of Na^{24} nuclei and fission fragments in the interaction of high energy protons with nuclei of gold and uranium. Zhur.eksp.i teor.fiz. no.3:994-995 Mr '60. (MIRA 13:7)

1. Institut geokhimii i analiticheskoy khimii Akademii nauk SSSR.
(Sodium--Isotopes) (Protons) (Nuclear reactions)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

LAVRUKHINA, A.K.; KUZNETSOVA, R.I.; SATAROVA, L.M.

Formation rate of radioactive isotopes in chondrites under the action of cosmic rays. Geokhimiia no.12:1219-1227 D '64. (MIRA 18:8)

1. Institut geokhimii i analiticheskoy khimii imeni V.I.Vernadskogo AN SSSR, Moskva.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

S/056/62/043/001/001/056
B154/B108

AUTHORS: Lavrukhina, A. K., Moskaleva, L. P., Malyshev, V. V., Sabarova, L. M.

TITLE: Production of light nuclei by bombarding heavy elements with 660 Mev protons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 1(7), 1962, 3-7

TEXT: The authors investigate the cross sections σ for the production of Be^7, F^{18}, Na^{24}, Mg^{28}, Si^{31}, P^{32} by 660 Mev proton bombardment of Al, Cu, Sb, Sn, Bi, U. The relative contributions of fission and fragmentation in Na^{24} production are estimated from the energy and angular distributions of the Na^{24} nuclei produced by bombarding Cu. The Al, Cu, Sb, and U targets were bombarded in the usual way (A. K. Lavrukhina, et al. Atomn. energ., 3, 285, 1957); Sn and Bi were kept in special graphite containers. The authors conclude that the production of Si^{31} and P^{32} by bombarding

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Production of light nuclei by ...

Cu and neighboring elements is a result of spallation and symmetric fission. Formation of lighter isotopes from all target nuclei occurs via fission and fragmentation. The ratio $\frac{\sigma(Na^{24})}{\sigma(F^{18})}$ is always > 1 and amounts to 2.5, 5.0, 2.8, 1.3 and 1.8 for Cu, Sb, U, Bi and Sn, respectively. The measured values of σ in the bombardment of Bi are virtually equal for all light nuclei which may be due to the spherical symmetry of these nuclei. The energies of the fragments from Cu fission (Na^{24} nuclei) in the angular interval of 15-80° are greater and the energies in the angular interval of 100-160° are smaller than the Coulomb repulsion of Na^{24} (20 Mev) so that asymmetric fission is supposed. The considerable anisotropy observed in the angular interval of 10-30° and the fragments with energies greater than that of Coulomb repulsion are indicative of fragmentation contributing to the process. The integral yield in fragments of a certain type depends on the "separation energy" $E = m_B + m_F - m_A$ (m_A - mass of target nucleus, m_F - mass of fragment, m_B - mass of additional fragment).

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S/056/62/043/001/001/056
B154/B108

Production of light nuclei by ...

There are 2 figures and 3 tables.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry of the Academy of Sciences USSR)

SUBMITTED: December 26, 1961 (initially)
March 27, 1962 (after revision)

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

L 10198-63 EPF(c)/EPF(n)-2/EWT(m)/BDS--AFFTC/ASD/SSD--
Pr-4/Pu-4
ACCESSION NR: AP3000029 S/0056/63/044/005/1429/1436

AUTHOR: Lavrukhina, A. K.; Revina, L. D.; Malyshev, V. V.; Satarova, L. M. 68 65

TITLE: Spallation of Fe Nuclei induced by 150-MeV protons

SOURCE: Zhurnal eksper. i teoret. fiziki, v. 44, no. 5, 1963, 1429-1436

TOPIC TAGS: Nuclear reactions, iron, low-energy protons, spallation, isotope distribution

ABSTRACT: Continuing their earlier work on the spallation of iron isotopes by 660-MeV protons (Geokhimiya, no. 11, 955, 1961 and Radiokhimiya, in press), the authors studied nuclear reactions at lower energies, aimed at clarifying volume effects in the distribution of cosmogenic nuclides in meteorites. To this end, the main features of spallation of iron nuclei by 150-MeV protons were studied. An empirical equation is found for the production cross sections of the spallation products. The majority of the product nuclei were found to be near the bottom of the stability valley. The weighted numbers of the emitted neutrons and protons are 2.9 and 2.7, respectively. The cross section for the

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L 10198-63
ACCESSION NR: AP3000029

3

inelastic cross section of 150-MeV protons with iron nuclei is 568 plus or minus 162 mb. The considerable difference between the distributions of the products at 150 and 660 MeV proton energies is probably due to the formation, absorption, and scattering of pions, which increases the probability of transferring large excitation energy to a nucleus at 660 MeV proton energy. Comparison of the total cross section for the inelastic interaction of the iron nuclei with the protons at the two energies with optical-model calculations yields and estimate for the radius of the Fe-56 nucleus, namely (1.21) 10 sup -13 cm. 'The authors express their gratitude to I. S. Kal'cheva, L. D. Firsova, and T. I. Kholodkovskaya who took part in this work.'

ASSOCIATION: none

SUBMITTED: 060ct62 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: PH NR REF SOV: 005 OTHER: 016

bm/CL
Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

LAVRUKHINA, A.K.; REVINA, L.D.; MALYSHEV, V.V.; SATAROVA, L.M.; SU KHUN-GUY [Su Hung-kuei]; KALICHEVA, I.S.; FIRSOVA, L.D.

Further study of the proudcts of iron spallation by 660 MeV protons. Radiokhimiia 5 no. 6:721-732 '63. (MIRA 17:7)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

L 19626-65 EWT(1)/EWT(m)/EWG(v)/FCC/EWA(d)/EEC-4/EEC(t)/EWA(h) Pb-4/
[illegible] Pz-4/Pae-2/P1-b/P1-4 DIAAP/ASD(f)-2/AFWL/AFETR/SSD/AFMDC/ESD(t)
ACC NR: [illegible] S/0007/64/000/012/1219/1227

AUTHORS: Lavrukhina, A. K.; Kuznetsova, R. I.; Satarova, L. M.

TITLE: The rate of radioactive isotope formation in chondrites by cosmic rays

SOURCE: Geokhimiya, no. 12, 1964, 1219-1227

TOPIC TAGS: geochemistry, meteorite, cosmic ray

ABSTRACT: The interaction between cosmic rays and nuclei of elements commonly [illegible] are difficult to study because of the variety of [illegible] elements are rare. Because of this, little [illegible] has been published concerning the rate of isotope production by cosmic [illegible] in stony meteorites. As an approach to this problem, the authors studied [illegible] active products from interaction between protons having energies of [illegible] various nuclei. Each element has an atomic weight and an [illegible] which is close to the mean weight of elements in chondrites [illegible]. Experimental results show that when [illegible] the number of the target element and of the [illegible] active product is less than 15, the formation cross section remains unchanged in the range of proton energies from 120 Mev to 28 Gev. If the difference is

Card 1/2

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L 19626-65
ACCESSION NR: AP5000419

greater than 10, the formation cross section of isotopes increases markedly with increase in proton energies from 120 Mev to 1 Gev. A semi-empirical formula was used to compute these formation cross sections, and the results agree with experimental measurements for a proton energy of 660 Mev. The maximal rate of isotope formation from cosmic rays was computed on the basis of average elemental composition for the center of a chondrite 10 cm in radius. The results are in fair agreement with the observed ratio of decay in the Harleton chondrite, but are only [illegible] as observed for the Bruderheim chondrite. Apparently secondary particles, especially low-energy neutrons, play an important role in isotope formation of the latter chondrite. These particles were not considered in the computations. Lack of knowledge of exact chemical composition and dimensions of these two chondrites makes it difficult to make any more detailed comparison. Orig. art. has: 4 tables and 6 formulas.

ASSOCIATION: Institut geokhmii i analiticheskoy khimii im. V. I. Vernadskogo, AN SSSR, Moscow (Institute of Geochemistry and Analytical Chemistry, AN SSSR)

ENCL: 00

SUBMITTED: 13Jul64

SUB CODE: AA,ES NO REF SOV: 009 OTHER: 024

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

YEVSTRATOVA, V.F., kand. khim. nauk, red.; YASHUNSKAYA, F.I., kand. khim. nauk, red.; SATAROVA, M.V., red.; KHOMYAKOV, A.D., tekhn. red.

[New rubbers; properties and uses. Collection of translated articles from foreign periodicals] Novye kauchuki; svoistva i primenenie. Sbornik perevodov statei iz inostrannoi periodicheskoi literatury. Moskva, Izd-vo inostr. lit-ry, 1958. 500 p. (MIRA 11:7)
(Rubber)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROVA, N. A.

"Some Particulars of Growth Cells during the Summer Passive Stage," Dok. AN, 62, No. 5, 1948. Mbr. Inst. of Plant Physiology im. K. A. Timiryazev, Dept. Biol. Sci., Acad. of Scil, -c1948-.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROVA, N. A.

"State of Rest in Potato and Root Rubber Plants as a Process of Protoplasm Separation." Thesis for degree of Cand. Biological Sci. Sub 22 Mar 49, Inst of Plant Physicology imeni K. A. Temiryazev, Acad Sci USSR.

Summary 82, 18 Dec 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya Moskva, Jan-Dec 1949.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROVA, N. A.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Biological Chemistry

(2)

Effect of chemical stimulants on changes of colloido-chemical properties of the protoplasm and activity of peroxidase in potato tubers. N. A. Satarova (K. A. Timiryazev Inst. Plant Physiol., Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* 93, 1119–22(1953); cf. *ibid.* 62, No. 5 (1948).—Application as chem. stimulants of thiourea or $ClCH_2CH_2OH$ (the former by immersion of tubers in 2% soln. 2 hrs., the latter in the vapor phase 4 days) results in changes of the protoplasmic properties in the cells of the skin parenchyma in the area of the "eyes." It is manifested in increased electrolyte permeability by 27% and 60%, resp., in some cases, although lower values have been observed as well. The destruction of the lipoid layer accelerates the intake of O_2 and H_2O into the cells with increased hydrophilic character of the protoplasm and lowered viscosity. Peroxidase activity rises by 60–120% within 10–30 days, with continued increase in activity beyond that time. G. M. Kosolapoff—

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

USSR/Agriculture - Biology FD 281

Card 1/1

Author : Satarova, N. A.

Title : Physiological peculiarities of potatoes grown from newly harvested tubers

Periodical : Izv. AN SSSR, Ser. Biol. 3, 62-78, May/June 1954

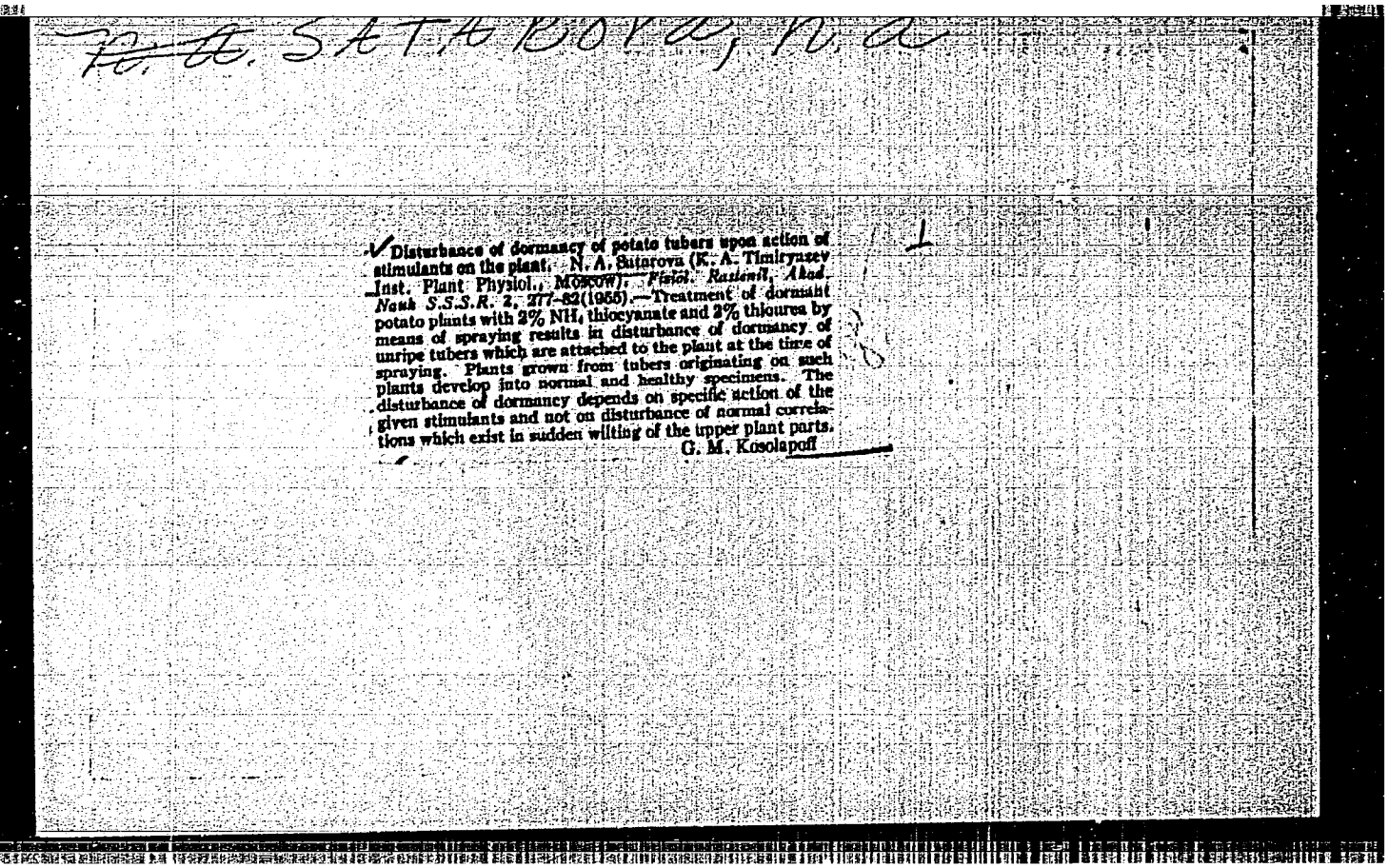
Abstract : Chemical, physical, and mechanical stimulation has been successfully used to hasten sprouting of dormant newly harvested potato tubers. If proper temperature, humidity, and aeration are supplied, normal sprouts come up from young tubers possessing high degree of adaptability to their immediate environment; the mature plants thereby acquire great resistance to dehydration and high temperature. Summer planting of newly harvested tubers of the potato Solanum tuberosum may result in high potato yield with tubers of good spermatic quality. Illustrations. Twelve tables. Thirty-one references, two non-Soviet.

Institution : Institute of Plant Physiology imeni K. A. Timiryazev, Academy of Sciences USSR

Submitted : February 22, 1954

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4



Disturbance of dormancy of potato tubers upon action of stimulants on the plant. N. A. Sutarova (K. A. Timiryazev Inst. Plant Physiol., Moscow). *Fiziol. Rastenii, Akad. Nauk S.S.S.R.* 2, 277–82(1955).—Treatment of dormant potato plants with 2% NH_4 thiocyanate and 2% thiourea by means of spraying results in disturbance of dormancy of unripe tubers which are attached to the plant at the time of spraying. Plants grown from tubers originating on such plants develop into normal and healthy specimens. The disturbance of dormancy depends on specific action of the given stimulants and not on disturbance of normal correlations which exist in sudden wilting of the upper plant parts.
G. M. Kosolapoff

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROVA, N.A.

✓ Content of amino acids in freshly collected potatoes upon disturbance of dormancy. N. A. Satarova (K. A. Timiryazev Inst. Plant Physiol., Moscow). *Fiziol. Rastenii* 2, 529–32(1955).—It was shown by paper chromatography that freshly collected potatoes contain considerable amts. of free amino acids: histidine, asparagine, serine, glycine, glutamine, alanine, some proline, 2-aminobutanoic acid, traces of tyrosine, threonine, valine, and methionine. Treatment with $HOCH_2CH_2Cl$ results in the existence of the following: lysine, histidine, asparagine, aspartic acid, serine, glycine, glutamine, glutamic acid, threonine, alanine, proline, 2-aminobutanoic acid, tyrosine, methionine, valine, phenylalanine, isoleucine, and an unindentified amino acid. Such treatment increases the concn. of free amino acids. With progress of tuber sprouting, the content of free amino acids declines. Apparently the deposits of lipides on the cellular protoplasmic surfaces during dormancy prevent the utilization of the amino acids by the embryo. G. M. K.

AID

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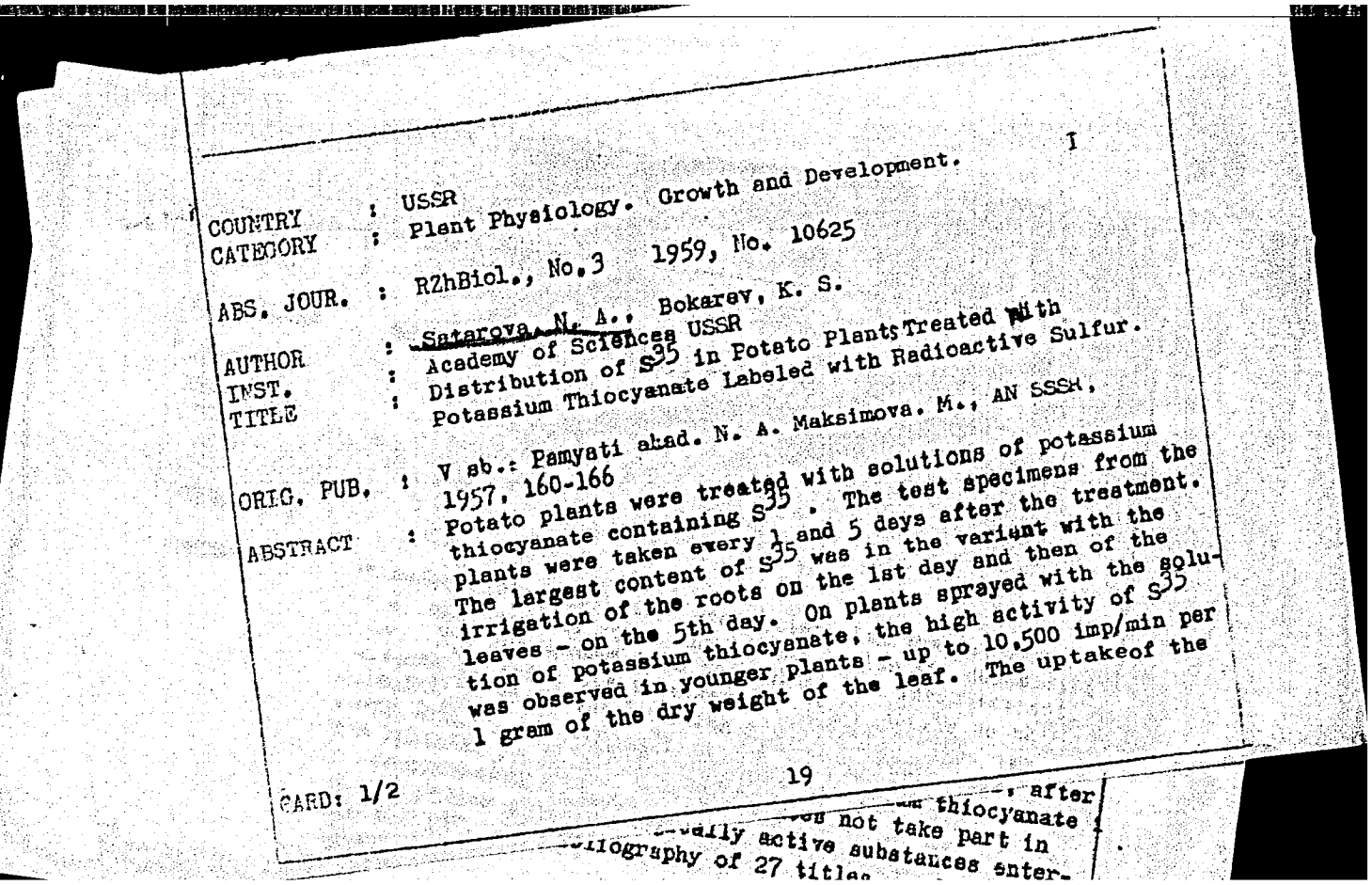

COUNTRY : USSR
CATEGORY : Plant Physiology. Growth and Development. I

ABS. JOUR. : RZhBiol., No.3 1959, No. 10625

AUTHOR : Satarova, N. A., Bokarev, K. S.
INST. : Academy of Sciences USSR
TITLE : Distribution of S^{35} in Potato Plants Treated with Potassium Thiocyanate Labeled with Radioactive Sulfur.

ORIG. PUB. : V sb.: Pamyati akad. N. A. Maksimova. M., AN SSSR, 1957, 160-166

ABSTRACT : Potato plants were treated with solutions of potassium thiocyanate containing S^{35}. The test specimens from the plants were taken every 1 and 5 days after the treatment. The largest content of S^{35} was in the variant with the irrigation of the roots on the 1st day and then of the leaves - on the 5th day. On plants sprayed with the solution of potassium thiocyanate, the high activity of S^{35} was observed in younger plants - up to 10,500 imp/min per 1 gram of the dry weight of the leaf. The uptakeof the

CARD: 1/2 19

[illegible] thiocyanate [illegible], after [illegible] not take part in [illegible] active substances enter- [illegible] bibliography of 27 titles.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROVA, N.A.

"Prevot and Wormer's mission in Moscow and Leningrad" [in French] by P.Prevot and T. Wormer. Reviewed by N.A. Satarova. Fiziol.rast. 4 no.1:110-111 Ja-F '57. (MLRA 10:5)
(Botanical research)
(Prevot, P.) (Wormer, T.)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROVA, N.A.

Bringing plants out of the dormant stage. Itogi nauki: Biol. nauki no.2:338-355 '58. (MIRA 14:4)

(Dormancy in plants) (Plants, Effect of chemicals on)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

USSR/Plant Physiology. Growth and Development

Abs Jour : Ref Zhur - Biol., No 20, 1958, No 91326

Author : Bokarev K.S., Satarova N.
Inst : Institute for Plant Physiology, AS USSR
Title : The Effect of Thiocyanates and Thiourea on Potato Tubers

Orig Pub : Fiziol. rasteniy, 1957, 4, No 4, 361-364

Abstract : A supposition is expressed that the emergence of the tubers from the dormant state while being treated with thiourea is connected with the isomerization of this substance into ammonium thiocyanate which is an active substance with the formula NH_4CNS $NH_2CS \cdot NH_2$. For verification the S-methylisothiourea sulfate and N-methylthiourea stimulated and the S-methylisothiourea sulfate retarded the emergence of the tubers from the quiescent state. The authors consider, therefore, that the thiourea acrivity is inherent to its isoform NH=C.NH which has the sulfhydryl group. The insignificant SH activity of the N-methylthiourea is apparently connected with

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[illegible] supposed that in treating potatoes with thiocyanates (rhodanides) the initial action is produced by the sulfhydryl

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

COUNTRY : USSR
CATEGORY : Cultivated Plants. Potatoes. Vegetables. M
Cucurbits.
JPRS, JOUR. : RKhBiol., No. 3, 1959, No. 10950

AUTHOR : Ivanov, I. D., Sataeva, N. A.
INST. : Institutes of Plant Biochemistry and Physiology, AS USSR
TITLE : Breaking the Dormancy of Newly Harvested Potato Tubers with Xanthogenates.

ORIG. PUB. : Fiziol. rasteniy, 1958, 5, No. 2, 188-190

ABSTRACT : In 1956, at the Institutes of Plant Biochemistry and Physiology, AS USSR, there was conducted the treatment (one month after harvesting) of the varieties Lorkh, Berlikhingen and Epron with ethylenexanthogenate (EXG) for 2 hours in the concentration of 0.03-0.01. Prior to the treatment, the tubers were cut in half. Control was treatment with water or thioures (TU). EXG accelerated the sprouting of the tubers and the growth of the plants. In the 1957 experiment the freshly harvested tubers of Epron variety were treated with EXG solution in the con-

CARD: 1/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

COUNTRY :
CATEGORY :

ABS. JOUR. : RZhBiol., No. 1959, No. 10950

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : centration of 0.5%. The sprouting of the tubers occurred 20 days earlier than in the control. When treated with TU, all the eyes sprouted; upon treatment with EXG - principally the top ones. In the experiment with Berlikhingen variety the control tubers did not sprout. EXG and TU stimulated the sprouting. — M. P. Ovsyannikova

CARD: 2/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROVA, N.A.

Characteristics of dormancy and nuclein metabolism in some flowers [with summary in English]. Fiziol.rast. 5 no.5:417-423 S-O '58. (MIRA 11:11)

1. Institut fiziologii rasteniy imeni K.A. Timiryazeva AN SSSR, Moskva. (Flowers) (Dormancy (Plants)) (Nucleic acids)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SOV/20-122-3-56/57

AUTHOR: Satarova, N. A.

TITLE: On the Problem of Transformation of Thiourea Labelled With S^{35} in Potato Tubers (K voprosu o prevrashchenii tiomocheviny, mechennoy S^{35}, v klubnyakh kartofelya)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 3, pp 528 - 531 (USSR)

ABSTRACT: In spite of numerous investigations with many methods the problems of the mechanism of the effect of the stimulants, i.e. of the substances which are mostly foreign to the plants and introduced in small quantities from outside, remained unclear. It was proved that physiologically active substances of the type of the α-naphthyl-acetic acid, potassium thiocyanate, and of others participate in the total metabolism, and are accumulated in the youngest, intensively growing organs (leaves and roots as well as in the fruits and seeds which are in the process of formation)(Ref 7). A part of the labelled carbon was separated from the α-naphthyl-acetic acid with the carbon dioxide which was breathed out. The potato plants were moistened with thiourea (Ref 5),

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and the tubers treated with it (Ref 7). The tables 1 and 2, as well as figures 1 and 2 give the results obtained by the investigations. The author draws from them the following conclusions: 1) The method of the labelled atoms can be used very expediently for the solution of the problems connected with the transformation of stimulants in the plants. 2) In the case of a treatment of the plants with labelled thiourea the latter dissociates. The labelled sulfur migrates with the rising as well as with the descending currents and is concentrated in the younger leaves of the upmost stage. An negligible quantity of S^{35} reaches the potato tubers. 3) In the case of the treatment of the cut tubers with thiourea the latter absorb a considerbale quantity of it on the surface of the cut. From here S^{35} is distributed gradually in the tubers. A considerable part of the S^{35} migrates from the tubers to the alcohol fraction. 4) The highest radioactivity in the amic acid fraction was found in methionine and a comparatively small radioactivity corresponded to cystine, cysteine and glutathion. There are 2 figures,

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

On the Problem of Transformation of Thiourea Labelled With S^{35} in Potato Tubers SOV/20-122-3-56/57

2 tables, and 8 references, 8 of which are Soviet.

ASSOCIATION: Institut fiziologii rasteniy im. K.A.Timiryazeva Akademii nauk SSSR (Institute of Plant Physiology imeni K.A.Timiryazev, AS USSR)

PRESENTED: March 24, 1958, by A.L.Kursanov, Member, Academy of Sciences, USSR

SUBMITTED: March 22, 1958

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

BOKAREV, K.S.; SATAROVA, N.A.; GURVICH, S.M.

Using xanthogenates to break the dormancy of potato tubers. Izv.AN SSSR.Ser.biol. no.3:446-450 My-Je '59. (MIRA 12:9)

1. Institute of Plant Physiology, Academy of Sciences of the U.S.S.R., Moscow.
(POTATOES) (DORMANCY (PLANTS)) (XANTHOGENATES)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROVA, N.A.

Effect of mucleic acids, adenine, and 2, 4-D on the growth of gladiolus tissue cultures. Fiziol.rast. 8 no.3:309-317 '61. (MIRA 14:5)

1. Institut fiziologii rasteniy im. K.A.Timiryazova Akademii nauk SSSR, Moskva.
(Growth promoting substances) (Tissue culture)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROVA, N.A.; ZVYAGINTSEV, I.V.

Method for the extermination of the tobacco shrips. Zashch.rast. ot vred.i bol. 7 no.5:40-41 My '62. (MIRA 15:11)

1. Krymskaya stantsiya Vsesoyuznogo instituta tabaka i makhorki.
(Crimea--Tobacco thrips--Extermination)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROVA, N.A.; TRUNOVA, T.I.

International Symposium On Cytoecology. Fiziol. rast. 11 no.1:156-158 Ja-F '64. (MIRA 17:2)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAROVA, N.A.; TVORUS, Ye.K.

Effect of high temperature and drought on the RNA content and protein synthesis in plants. Izv. AN SSSR Ser. biol. 30 no.1: 66-74 Ja-F '65. (MIRA 18:2)

1. Institute of Plant Physiology, Academy of Sciences of the U.S.S.R., Moscow.

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L 23538-66 EWT(1)/T JK

ACC NR: AP6013988 SOURCE CODE: UR/0216/65/000/001/0066/0074

AUTHOR: Satarova, N. A.; Tvorus, Ye. K.--Tvorus, E. K.

ORG: Institute of Plant Physiology, AN SSSR, Moscow (Institut fiziologii rasteniy AN SSSR)

TITLE: Effect of high temperatures and drought on RNA content and protein synthesis in plants

SOURCE: AN SSSR. Izvestiya. Seriya biologicheskaya, no. 1, 1965, 66-74

TOPIC TAGS: biosynthesis, protein, RNA, nucleic acid, plant metabolism

ABSTRACT: Until recently the depression of growth processes and marked disturbances in protein synthesis under the influence of drought and elevated temperatures have not been considered from the standpoint of a relationship between the protein problem and the metabolism of nucleic acids. Now it is known that growth, formative processes, and productivity in plants are very closely related to protein synthesis, in which RNA participates. The authors describe the results of an experimental investigation of the effect of a temporary (12-24-hr) increase in temperature (to 40-42 C) and of atmospheric drought on the RNA and protein content of the leaves of the potato plant. It is found that then the protein partially decomposes while the RNA content remains essentially the same and, in the leaves of temperature-hardened and

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$ZnSO_4$-treated plants, it is higher than in the leaves of control plants. Further, RNA content decreases with increasing age of plants. Experiments with N^{15} showed the existence of a correlation between RNA content and the rate of protein synthesis. The decrease in the enrichment of protein with N^{15} in the upper leaves following the drought indicates that in the complex chain of the protein synthesis reaction there exists a link more sensitive to the effect of high temperatures than the total RNA. Orig. art. has: 2 figures and 5 tables. [JPRS]

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ZADONTSEV, A.I., akademik; BONDARENKO, V.I.; SATAROVA, V.D.

Difference in winter hardiness and productivity of winter wheat shoots of different age. Dop. AN URSR no.10:1376-1380 '64.
(MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kukuruzy.
2. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. Lenina, chlen-korrespondent AN UkrSSR (for Zadontsev).

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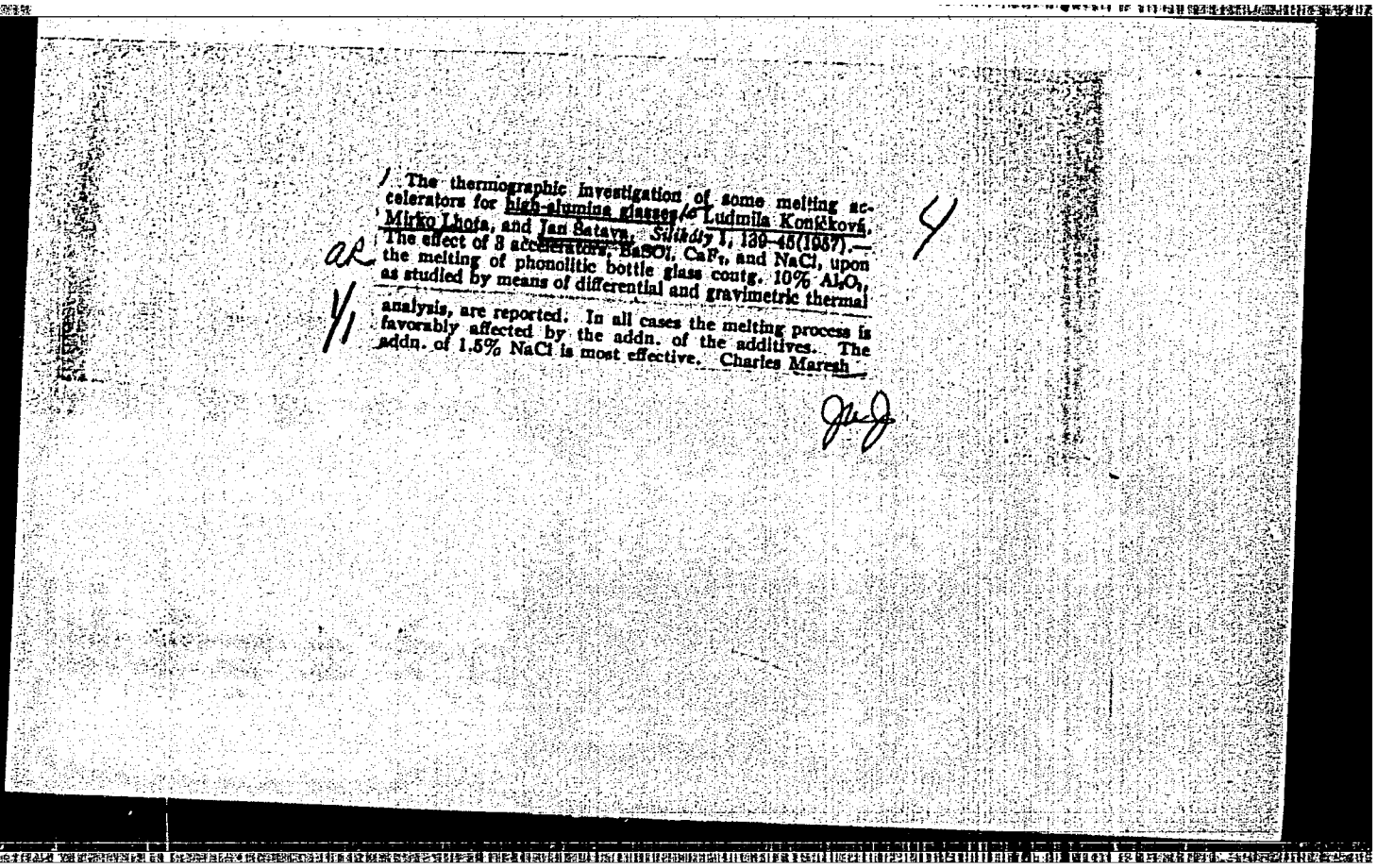

The thermographic investigation of some melting accelerators for high-alumina glasses. Ludmila Konšiková, Mirko Lhoťa, and Jan Šatava. *Silikáty* 1, 139–45(1957).—The effect of 3 accelerators, $BaSO_4$, CaF_2, and NaCl, upon the melting of phonolitic bottle glass contg. 10% Al_2O_3, as studied by means of differential and gravimetric thermal analysis, are reported. In all cases the melting process is favorably affected by the addn. of the additives. The addn. of 1.5% NaCl is most effective. Charles Marsh

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SATAVA, J.; VYTASIL, V.

The application of differential thermal analysis in enamel research. p. 185. (SILIKATY, Vol. 1, No. 2, 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

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SATAVA, Jiri

Problems of product quality and its control. Kvasny prum 10 no. 6:137-138 Je '64.

1. Prazske pivovary National Enterprise, Prague.

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SATAVA, J.

CZECHOSLOVAKIA

PATRO, F.; KUTEK, F.; SATAVA, J.

Institute of Inorganic Chemistry, College of Chemical Engineering (Institut für anorganische Chemie, Technische Hochschule für Chemie), Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications, No 11, November 1965, pp 4459-62

"On the chemistry of rare elements. Part 22: Basic lanthanum carbonate."

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

SATAVA, Miloslav, inz., CSc.

Biologic and chemical substances in the food of domestic animals in the Soviet Union. Vest ust zemedel 11 no.1: 27-31 '64.

1. Vysoka skola zemedelska, Ceske Budejovice.

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SATAVA, M., inz. CSc.

Conference on specific active substances. Vest ust zemedel 12 no.1:27 '65.

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LHOTSKY; KAREL; SATAVA; SEILER, A., inz.; MINARIK; BLAHA; KUTTELVASR; BERAN

Reports. Kvasny prum 10 no.9:213-216, 3 of cover S '64.

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Mineralogical constitution and sorption capacity of ceramic clays. V. Šatava. *Zprávy Československ. Keram. Společnosti* 25, 73(1949).—Czechoslovakian kaolin, bentonite, montmorillonite, and halloysite were examd. by chem., thermal, x-ray, and electron-microscopical analysis. The clays were purified by treatment with H_2O_2 and subsequent electrodialysis; sorption capacities were then detd. by potentiometric titration. The course of the titration curves is explained on the basis of surface diffusion. Evidence for the existence of ionizable OH and SiOH groups is given. The effect of electrolytes on the viscosity of slips of the clays was studied.

B. A.

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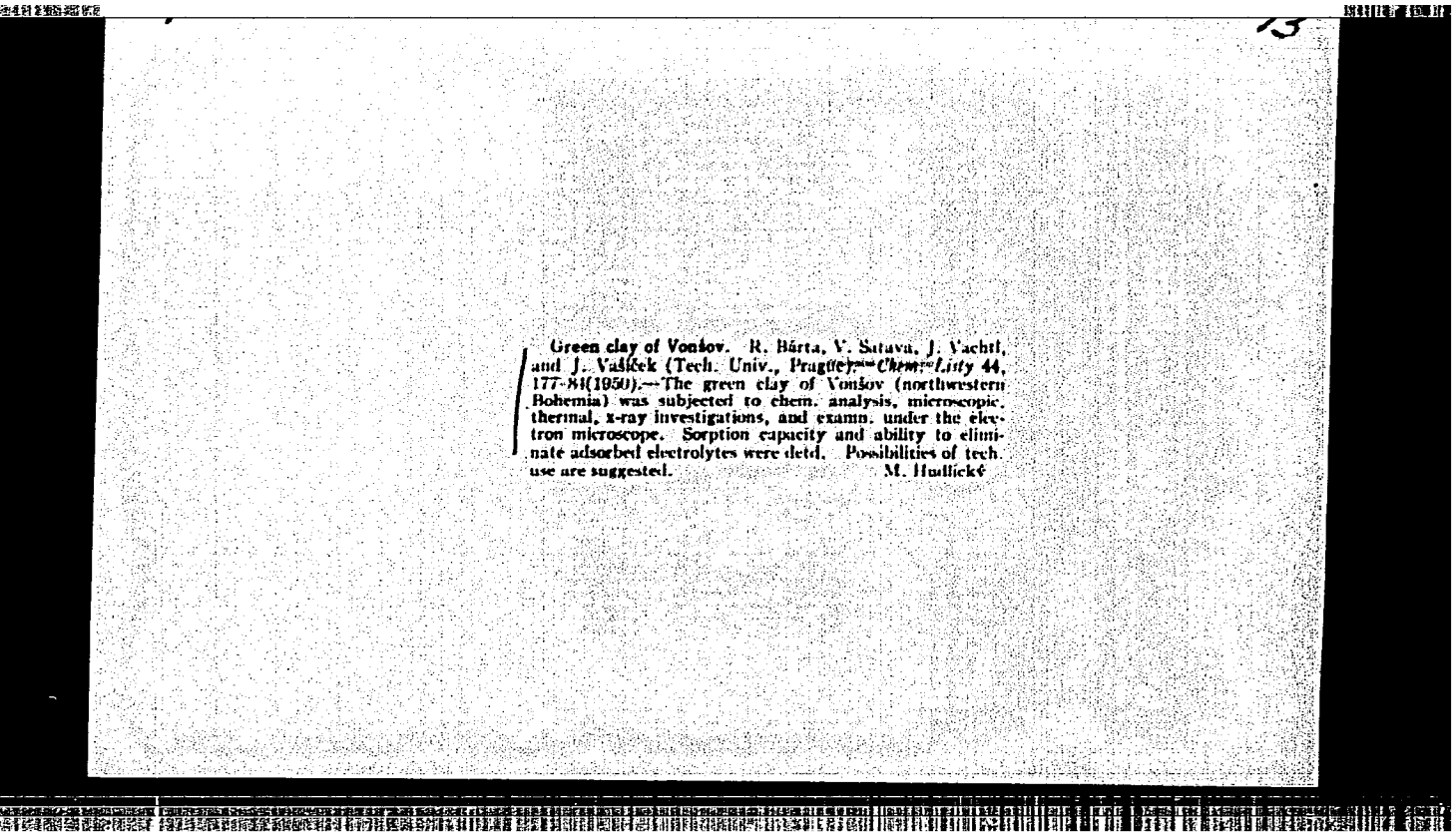

Green clay of Vonšov. R. Bárta, V. Satava, J. Vachtl, and J. Vašíček (Tech. Univ., Prague). *Chem. Listy* 44, 177-84(1950).—The green clay of Vonšov (northwestern Bohemia) was subjected to chem. analysis, microscopic, thermal, x-ray investigations, and examn. under the electron microscope. Sorption capacity and ability to eliminate adsorbed electrolytes were detd. Possibilities of tech. use are suggested. M. Hudlický

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SATAVA, Vladimir

Chemical Abst.
Vol. 48
Apr. 10, 1954
Analytical Chemistry

(?)

Differential thermal analysis as a rapid control method for chemical industries. Rudolf Bárta and Vladimir Satava. *Chem. Průmysl* 3, 113–17(1953).—A review with 28 references and an app. registering endo- and exothermic reactions up to 1100° is described. Photographic paper records deviations of galvanometer connected to a thermocouple in the furnace. The analysis lasts approx. 1½ hrs. P. J. Hendel

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SATAVA, V.

Properties of ceramic clays from the point of view of colloid chemistry, p. 303, SKLAR A KERAMIK (Ministerstvo lehkeho prumyslu) Praha, Vol. 4, No. 11, Nov. 1954

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 5, No. 12, December 1956

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SATAVA, V.

Through the creative force of working people to further development of light industry, p. 309, SKLAR A KERAMIK (Ministerstvo lehkeho prumyslu) Praha, Vol. 4, No. 12, Dec. 1954

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 4, No. 12, December 1956

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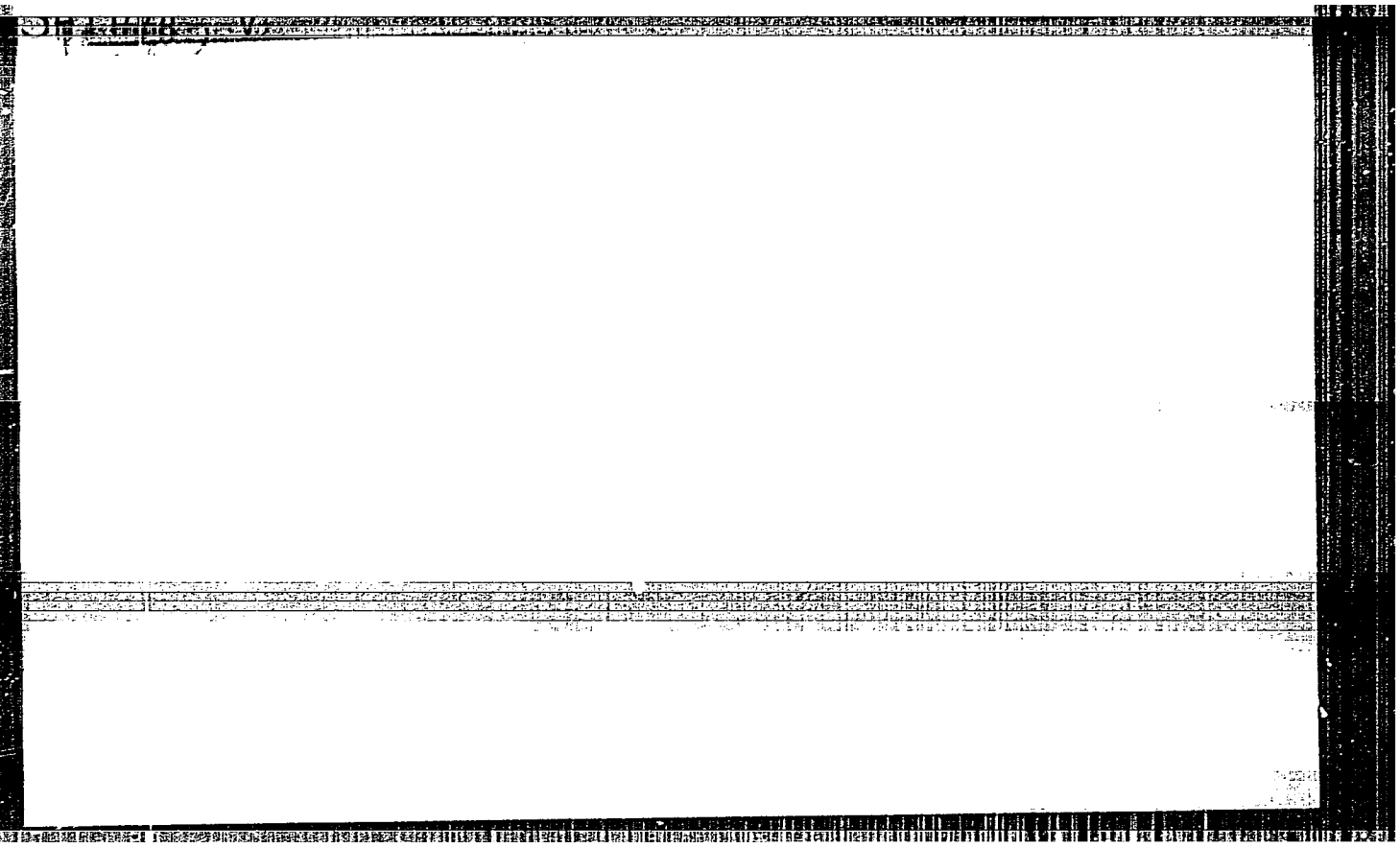

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"Steam curing of concrete." (p. 122.) STAVIVO (Ministerstvo stavebnich hmot) Praha, Vol 32, No 4, Mar. 1954.

SO: East European Accessions List, Vol 4, No 8, Aug 1954

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SATAVA, V.

Rheology in the field of silicates. (To be contd,) p. 138.
SKLAR A KERAMIK, Praha, Vol. 5, no. 6, June 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

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SATAVA, V.

Rheology in the field of silicates. p. 164.
SKLAR A KERAMIK, Praha, Vol. 5, no. 7, July 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

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SATAVA, V.

242. Device for the rheological examination of the consolidation process of binding materials.—V. SATAVA (*Silikat Tech.*, 6, 338, 1955). In German. Description of a device designed on the principle of the Vicat needle, which observes the process of consolidation from beginning to end. By evaluating the curves, the consolidation process can be properly controlled.

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18 27

✓ The allotropic transformation of cobalt and its effect on physicochemical reactions Adela Kochanowska and Vladimir Šatava Abhandl. Inst. Theor. Hüttenk. Bergbaukunde Tech. Hochsch. Berlin, 1955 [illegible]

[illegible] pressure of [illegible] shows that the cubic modification changes with the rolling milling time into the hexagonal form and after 8 hrs milling the cubic form again appears. This structural change affects the rate of oxidation of Co. The progress of oxidation for both modifications is shown by curves where the wt. increase is plotted vs. the temp. The milling was done in ball mills of china with china balls. G. P. Rosenbaum

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SATAVA, Vladimir

The effect of milling on the course of the oxidation of cobalt. Vladimír Šatava and Adéla Kochanovská. *Collection Czechoslov. Chem. Communs.* 20, 1215–19(1955)(in German).—See *C.A.* 49, 11824c. R. T. C. MG: (1)

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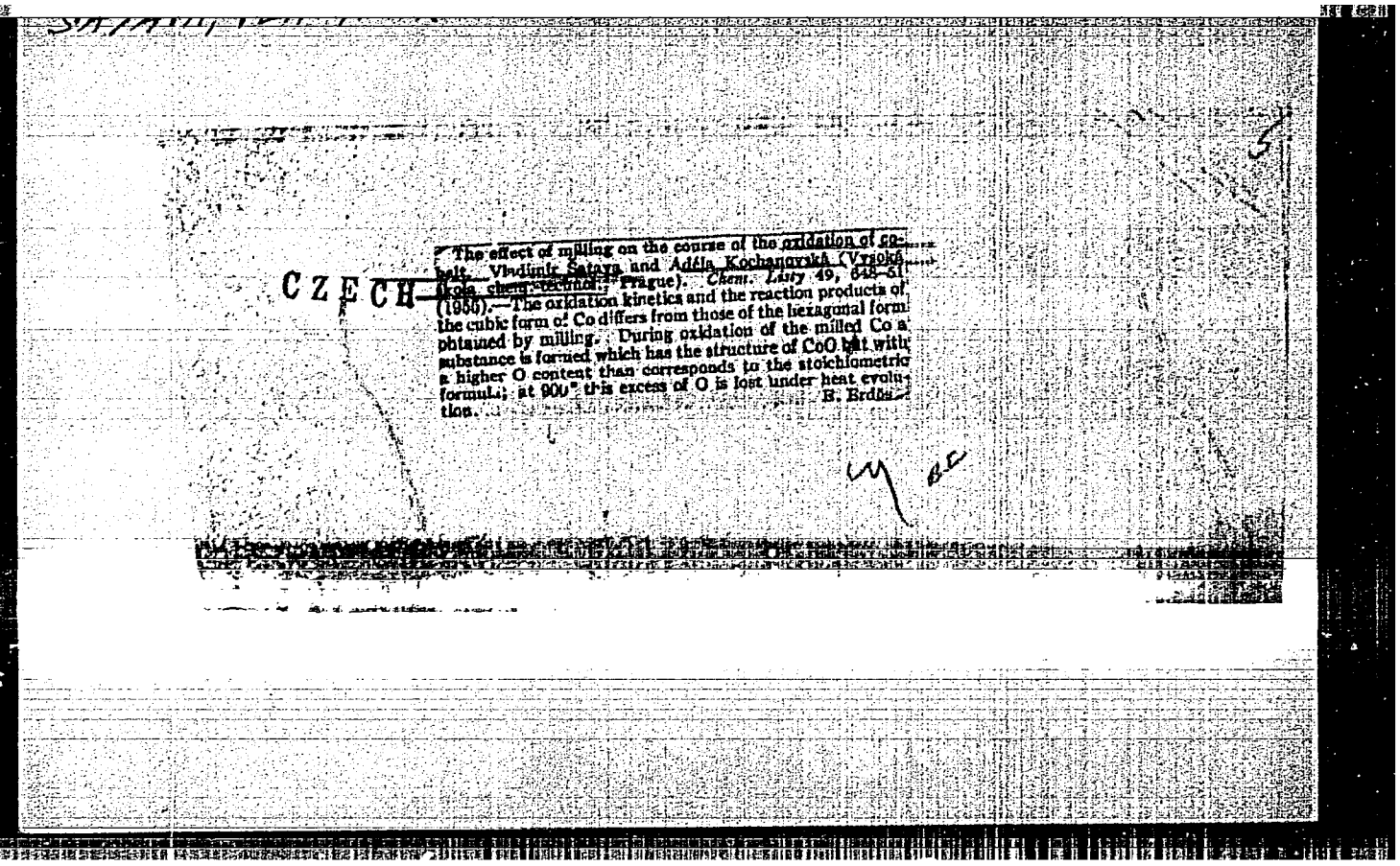

CZECH

The effect of milling on the course of the oxidation of co-
balt. Vladimír Šatava and Adéla Kochanovská (Vysoká
škola chem.-technol., Prague). *Chem. Listy* 49, 648–51
(1955).—The oxidation kinetics and the reaction products of
the cubic form of Co differs from those of the hexagonal form
obtained by milling. During oxidation of the milled Co a
substance is formed which has the structure of CoO but with
a higher O content than corresponds to the stoichiometric
formula; at 900° this excess of O is lost under heat evolu-
tion. E. Erdös

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SATAVA, V. : BARTA, R.

Basic research in silicates. p. 123.

SKLAR A KERMIK. Praha, Czcechoslovakia. Vol 6, no. 5, May 1956

Source: Eastern European Accession List, (EEAL), Library of Congress Vol 5, no. 12 December 1956.

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ŠŤAVA, VLADIMÍR

CZECHOSLOVAKIA / Liquids. D-8

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9094

Author : Šatava, Vladimir
Title : Modern Views of the Structure of Glass

Orig Pub : Sklar a keramik, 1956, 6, No 9-10, 216-220

Abstract : No abstract

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SATAVA, V.

The $CaO - SiO_2 - H_2O$ system.

P. 98, (Silikaty) Vol. 1, no. 1, 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

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SATAVA, V.; SINKA, J.

Application of differential and gravimetric thermal analysis to the research of calcium oxychloride. p. 174. (SILIKATY, Vol. 1, No. 2, 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

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SATAVA, V.

A simple thermobalance with a registration device. p. 183.
(SILIKATY, Vol. 1, No. 2, 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

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SATAVA, V.

Temperature program controllers for thermal analysis. p. 204.
(SILIKATY, Vol. 1, No. 2, 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

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SATAVA, V.

Differential thermal analysis. p. 207. (SILIKATY, Vol. 1, No. 2, 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

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SATAVA, V.

Documentation on thermal analysis. p. 232. (SILIKATY, Vol. 1, No. 2, 1957, Praha, Czechoslovakia)

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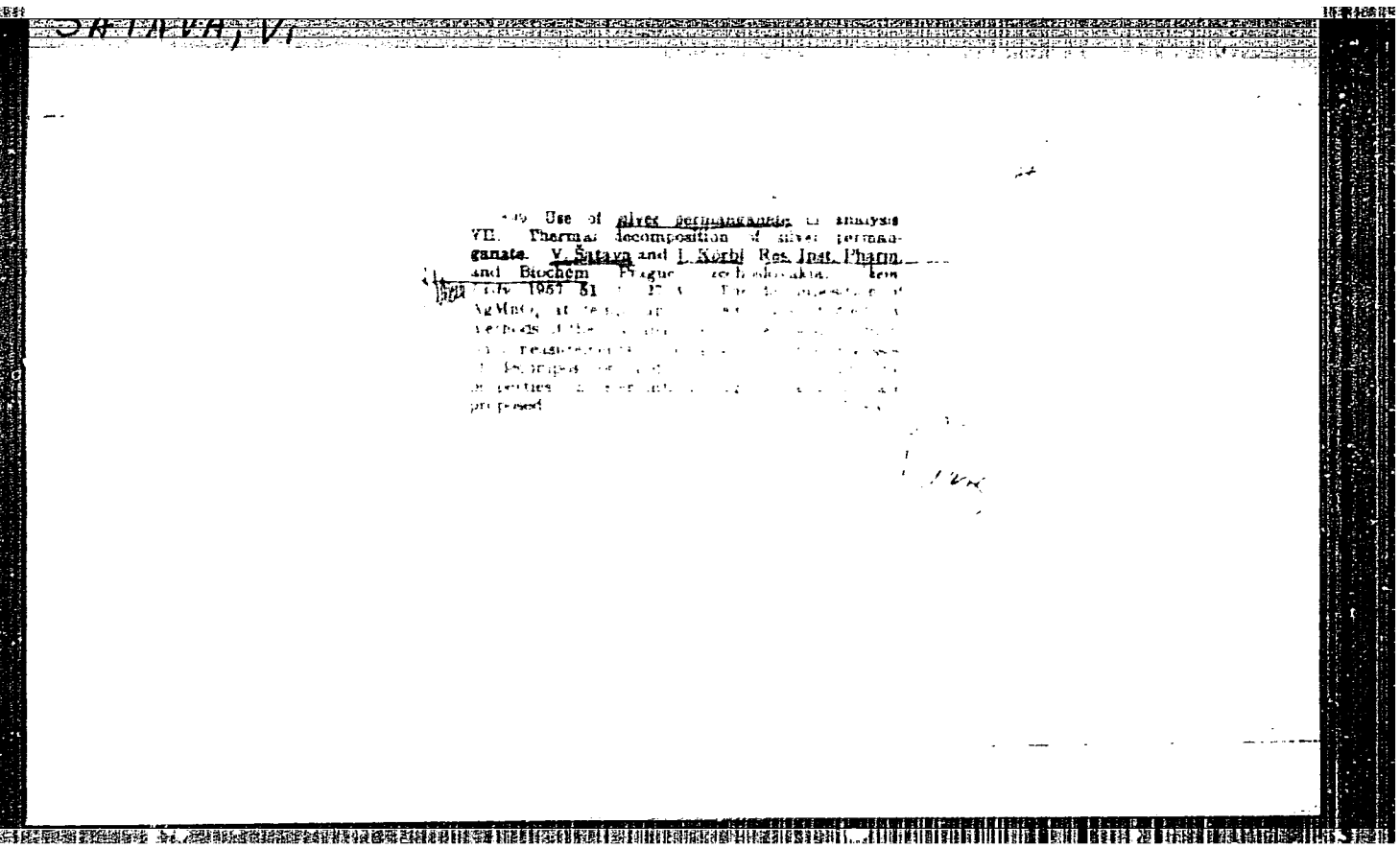

ŠTAVA, V.

Use of silver permanganate in analysis VII. Thermal decomposition of silver permanganate. V. Šťava and I. Korbl. Res. Inst. Pharm. and Biochem. Prague Czechoslovakia. Chem. Listy 1957 51 [illegible]

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SATAVA, V

Distr: 4E2c

A furnace with controlled atmosphere and temperature gradient. V. Šatava and K. Stránský (Vysoká škola chem.-tech., Prague). *Silikáty* 5, 343–7(1950).—The device consists of a cylindrical furnace with a resistance winding. Gas flows through a silica tube inserted in the furnace. The temp. gradient across samples placed in the tube is measured by a thermocouple and a location indicator. The furnace was used to optimize the glazing of a glass contg. SiO_2 76.78, Na_2O 8.35, K_2O 9.8, and CaO 5.07% with a mixt. of ochre and $CuSO_4$. The glaze was first air-heated for 20 min. at 540°, then reduced for 80 min. in H at 250° or CO at 350–500°, and finally reheated for 2 hrs. in air at 300–500°. The furnace can be used for the study of irreversible surface reactions on solids and powder reactions. Cf. *C.A.* 44, 8074d.
Martin Cohen

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Z/012/60/000/01/009/015
E073/E135

AUTHOR: Šatava, V.

TITLE: Solid Phase Reactions

PERIODICAL: Silikáty, 1960, No 1, pp 67-98

ABSTRACT: This is an exhaustive review paper on the subject. The aim of the author is to review only the most important work which is relevant from the point of view of silicate technology. The author deals with the subject matter under the following headings: types of reactions; thermodynamics of solid phase reactions; kinetics (idealised model of decomposition, real process of decomposition, study of thermal decomposition for solid substances; reactions between metals and gases; reactions between two solid substances); importance of solid state chemistry from the point of view of silicate technology (strengthening of ceramics without changing the shape, synthesis of materials, melting of glass stock, corrosion of refractory linings, preparation of "active" substances, hydration of enamels).

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Solid Phase Reactions

There are 12 figures, 2 tables and 62 references, of which 2 are Soviet, 23 English, 28 German and 9 Czech.

ASSOCIATION: Katedra technologie silikátů VŠCHT, Praha
(Chair of Silicate Technology, VŠCHT, Prague

SUBMITTED: August 26, 1959

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001447220016-4

Z/012/61/000/003/003/004
E112/E435

AUTHOR: Šatava, Vladimír

TITLE: Thermal decomposition of kaolinite

PERIODICAL: Silikáty, 1961, No.3, pp.248-255

TEXT: The mechanism of the reactions involved in the thermal dehydration of kaolinite, and the endothermic peaks of the thermal analyses curves are not yet fully understood. The present paper reviews the most important developments in this field. The subject matter is divided as follows. 1) Earlier views on the mechanism. Refutation of theory of amorphous nature of end-product of thermal decomposition. 2) Work of G.W.Brindley and M.Nakahira, concerned mainly with methods to produce sufficiently well defined crystals of kaolinite. They finally obtained sufficiently large crystals and demonstrated by X-ray analysis that parameters a and b remained unchanged after dehydration, while the regularity along the c-axis disappeared. 3) The kinetics of dehydration are discussed. It proceeds according to the first-order kinetic law, enabling velocity constants to be evaluated at different temperatures. Some newer literature draws attention to deviations

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from the first-order law. The speed by which water-vapours can escape from the sample during dehydration may be the rate-determining factor. 4) Reaction at 950°C. The structure of metakaolin, suggested by Brindley's work (Ref.20: Jour.Am.Cer.Soc. 42,311,314 and 319 (1959)) is considered a sound basis for the understanding of the exothermic processes occurring at 960°C. 5) Further discussion of Brindley's work: X-ray diffraction data have indicated that a spinel type structure, considered to be an Al-Si spinel with vacant cation sites, develops at about 925°C. Decomposition of the spinel forms mullite. The nature of the spinel structure is discussed and its formation is illustrated diagrammatically. A schematic representation of the arrangement of the structural layers in a spinel is shown. 6) Formation of mullite is discussed. Electron-microscopic studies of the formation of mullite from kaolinite have proved a structural relationship between both products. It is now generally accepted that the mechanism of the transformation of kaolinite into mullite is based on the formation of octahedral chains (AlO_6) from the octahedral layers in the kaolinite. The structural relationship between mullite and silimanite is discussed, the structure of the

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